

STEPPING STONES ESTATES (PWSNO 1280243) SOURCE WATER ASSESSMENT REPORT

December 12, 2001



State of Idaho Department of Environmental Quality

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Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This risk assessment is based on a land use inventory in the well recharge zone, sensitivity factors associated with how the well was constructed, and aquifer characteristics.

This report, *Source Water Assessment for Stepping Stones Estates*, describes the public drinking water wells; the well recharge zone and potential contaminant sites located inside the recharge zone boundaries. This assessment, taken into account with local knowledge and concerns, should be used as a planning tool to develop and implement appropriate protection measures for this public water system. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

Two wells pumping from the Rathdrum Prairie Aquifer supply water for domestic use for Stepping-Stones Estates customers. The water system serves a population of 64 people in a rural residential development about 3 miles east of Rathdrum, Idaho. A ground water susceptibility analysis conducted by DEQ October 18, 2001 ranked the wells moderately susceptible to all classes of regulated contaminants, mostly because of risk factors associated with local geology.

This assessment should be used as a basis for determining appropriate new drinking water protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Because 186 public water systems in Idaho draw water from the Rathdrum Prairie Aquifer, they should consider forming a regional group to represent their interests before state, county and municipal governing bodies when regulatory tools like zoning overlays, or enactment of building codes are the most appropriate ground water protection measures. Partnerships with state and local agencies and industry groups should also be established. For example, activities related to agriculture should be coordinated with the Idaho State Department of Agriculture, local Soil Conservation District, and the Natural Resources Conservation Service

For drinking water protection in its own jurisdiction, Stepping Stones Estates should promote cross connection prevention. Maintenance to keep surface contaminants from entering the reservoir should be kept current. A joint between the Well #1 discharge and the reservoir that was deficient when inspected in 1998 needed repair when the system was surveyed again in July 2001. The utility could also distribute educational materials pertaining to ground water pollution prevention to its customers. Proper use and care of septic tanks, and home use of fertilizer and pesticide are important topics in a rural neighborhood.

Due to the time involved with the movement of ground water, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. For assistance in developing protection strategies, please contact your regional Department of Environmental Quality office or the Idaho Rural Water Association.

SOURCE WATER ASSESSMENT FOR STEPPING STONES ESTATES

Section 1. Introduction - Basis for Assessment

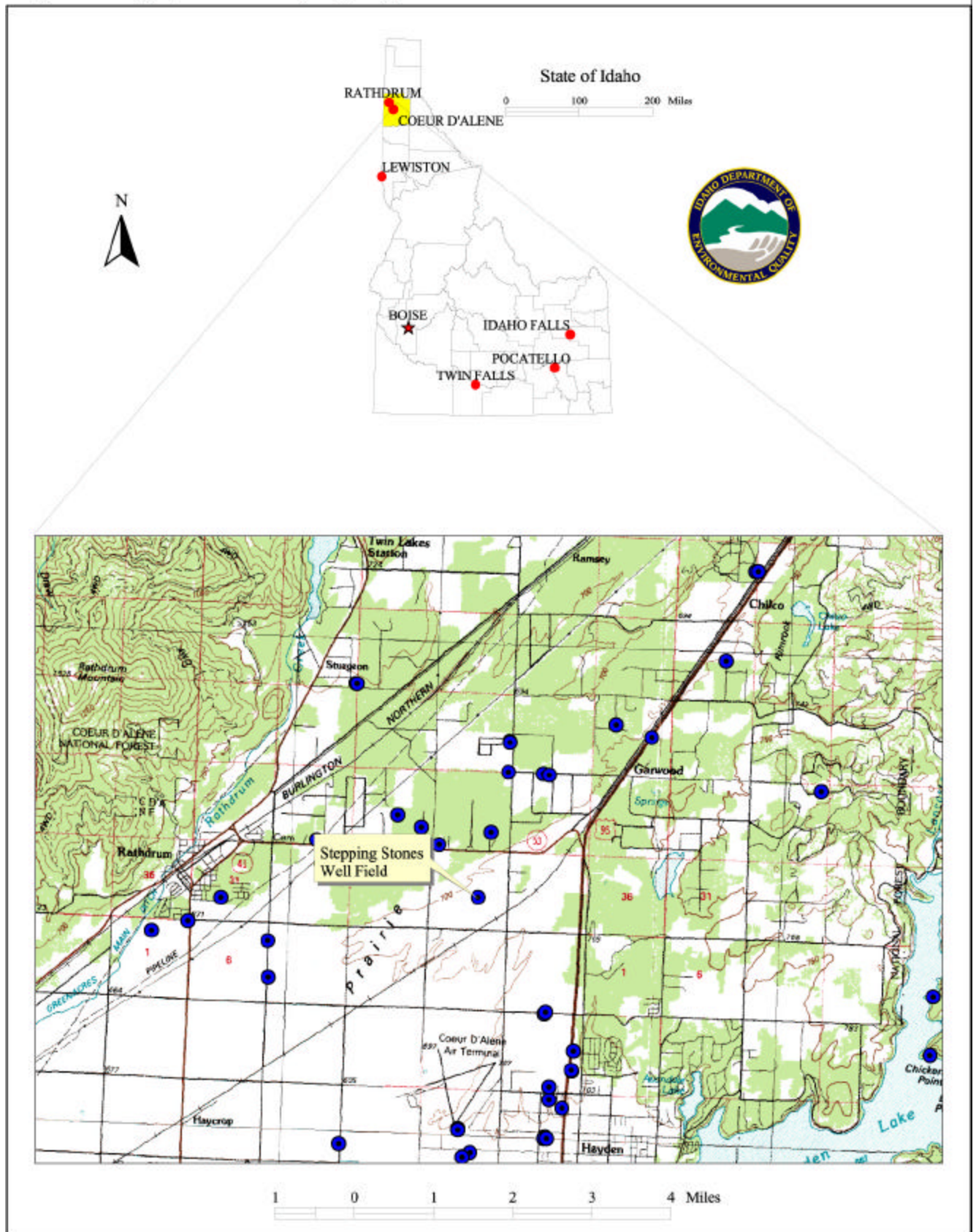
The following sections contain information necessary for understanding how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and an inventory of significant potential sources of contamination identified within that area are included. The ground water susceptibility analysis worksheets used to develop this assessment are attached.

Level of Accuracy and Purpose of the Assessment

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess every public drinking water source in Idaho for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. These assessments are based on a land use inventory inside the delineated recharge zones, sensitivity factors associated with how the well is constructed, and aquifer characteristics. The state must complete more than 2900 assessments by May of 2003. Because resources and the time available to accomplish assessments are limited, an in-depth, site-specific investigation for every public water system is not possible.

The results of the source water assessment should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system The ultimate goal of this assessment is to provide data to local communities for developing a protection strategy for their drinking water supply. The Idaho Department of Environmental Quality recognizes that pollution prevention activities generally require less time and money to implement than treating a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Figure 1. Geographic Location of Stepping Stones Estates



Section 2. Preparing for the Assessment

Defining the Zones of Contribution - Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the well recharge area into time of travel (TOT) zones indicating the number of years necessary for a particle of water to reach a well. DEQ used a refined computer model approved by the EPA to determine the time of travel for water pumped from the Rathdrum Prairie Aquifer. The computer model used data DEQ assimilated from a variety of sources including local well logs.

Stepping Stones Estates is a community water system with about 32 connections serving a rural residential development about 3 miles east of Rathdrum, Idaho (Figure 1). A well field comprised of two wells supplies drinking water for Stepping Stones Estates customers. The capacity of the wells is 320 GPM each.

The delineation for the Stepping Stones Estates well is a narrow corridor stretching about 1.25 miles north and slightly eastward from the well field (Figure 2). The delineation is divided into 0-3-year, 3-6-year and 6-10 year time of travel zones.

Identifying Potential Sources of Contamination

The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. Inventories for Stepping Stones Estates and all other public water systems in Idaho were conducted in two-phases. The first phase involved identifying and documenting potential contaminant sources within a system's source water assessment area through the use of computer databases and Geographic Information System maps developed by DEQ. A map showing the delineations and a table summarizing the results of the database search were then sent to system operators for review and correction during the second or enhanced phase of the inventory process.

Figure 2, *Stepping Stones Estates Delineation and Potential Contaminant Inventory* on page 7 of this report shows the locations of the Stepping Stones Estates wells, the zones of contribution DEQ delineated for the wells, and approximate locations of potential contaminant sites in the vicinity.

Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. When a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation.

Section 3. Susceptibility Analysis

DEQ weighed the following factors to assess a well's susceptibility to contamination:

- physical integrity of the well,
- hydrologic characteristics,
- land use characteristics, and potentially significant contaminant sources
- historic water quality

Susceptibility rankings are specific to a particular potential contaminant or category of contaminants. A high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking. The Susceptibility Analysis Worksheets, Attachment A, show in detail how each Stepping Stones Estates well scored.

Well Construction

Well construction directly affects the ability of a well to protect the aquifer from contaminants. Lower scores imply a well that can better protect the ground water. This portion of the susceptibility analysis relies on information from individual well logs and from the most recent Sanitary Survey of the public water system. The driller's reports for the Stepping Stones Estates wells are on file with DEQ. The Sanitary Survey conducted in January July 2001 in response to a confirmed total coliform bacteria sample found the system to be well run. No deficiencies were noted in wellhead and surface seal maintenance.

Well #1 was drilled in 1985 to a depth of 382 feet. The steel well casing extending from 1 foot above ground to the full depth of the well with perforations from 360 to 380 feet. The bentonite clay surface seal is 20 feet deep. The seal and casing both terminate in porous materials typical of the Rathdrum Prairie Aquifer. The static water level in the well is at 300 feet. Except for a minor difference in the casing wall thickness, the well appears to meet current Idaho Department of Water Resources (IDWR) construction standards.

Well #2, drilled in 1996, is 380 feet deep. The 8-inch steel casing extending from 12 inches above grade to 380 feet below the surface is completed in a gravel stratum. The casing is perforated from 260 to 278 feet. The static water level in Well #2 is 300 feet. Current IDWR standards require the un-perforated portion of the casing to extend at least 5 feet below the static water level. The cement grout surface seal is 20 feet deep, terminating in a gravel layer.

Figure 2. Stepping Stones Estates Delineation and Potential Contaminant Inventory.

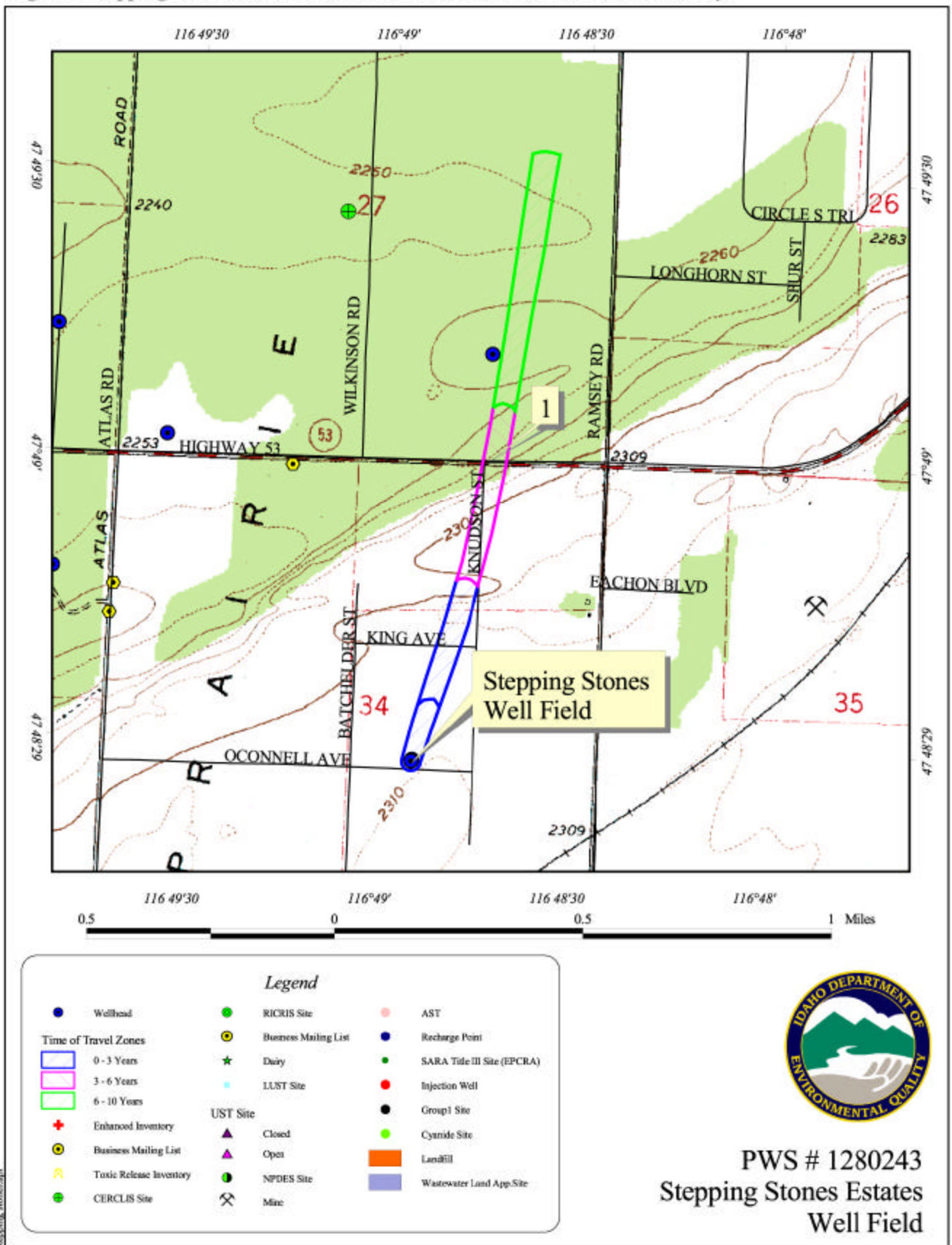


Table 1. Selected Construction Characteristics of Stepping Stones Estates Wells

| Well | Total Depth (ft.) | Depth of Surface Seal (ft) | Depth of Casing (ft) | Perforation Depth Range (ft) | Static Water Level (ft) |
|---------|-------------------|----------------------------|----------------------|------------------------------|-------------------------|
| Well #1 | 382 | 20 | 382 | 360-380 | 300 |
| Well #2 | 380 | 20 | 380 | 260-278 | 300 |

Hydrologic Sensitivity

Hydrologic sensitivity scores reflect natural geologic conditions at the well site and in the recharge zone. Information for this part of the analysis is derived from individual well logs and from the soils drainage classification inside the delineation boundaries. Both of the Stepping Stones Estates wells scored 5 points out of 6 points possible in the hydrologic sensitivity portion of the susceptibility analysis. Soils in the recharge zone generally are classed as moderately well to well drained. Soils that drain rapidly are deemed less protective of ground water than finer grained, slow draining soils.

In both wells, the depth to ground water is about 300 feet. This great depth to ground water provides greater opportunity for potential contaminant attenuation through adsorption and other mechanisms. The soil strata above the water table are known to be gravel, sand, boulders and cobbles without a significant clay layer to retard vertical transport of potential contaminants.

Potential Contaminant Sources and Land Use

The recharge zone for the Stepping Stones Estates well field is rural residential with irrigated agriculture. Homes in the area are on individual septic systems. There are no industrial or commercial land uses documented inside the well recharge delineation boundaries. State Highway 53 crosses the 3-6 year time of travel zone about 0.6 miles north of the well field.

Figure 2, *Stepping Stones Estates Delineation and Potential Contaminant Inventory* on page 7 shows the locations of the Stepping Stones Estates wells, the zones of contribution DEQ delineated for the wells, and locations of potential contaminant sites in the vicinity. Irrigated agricultural land usage in the recharge zone accounts for most of the points marked against the well field in this portion of the susceptibility analysis.

Historic Water Quality

Historically, Stepping Stones Estates has had few water quality problems other than instances of bacterial contamination in the distribution system in the summers of 1994 and 2001. The system is not required to disinfect its water prior to distribution.

Since annual testing began in 1989, Nitrate concentrations have ranged between 0.6 and 3.78 mg/l. The Maximum Contaminant Level (MCL) for Nitrate is 10 mg/l. Sodium has been present of a concentration of about 2.4 mg/l. Radiological contaminants at levels well below the MCL have been present in samples tested since 1989. Synthetic organic compounds (SOCs) and volatile organic compounds (VOCs) have never been detected in the water, and the association has been granted waivers to reduce monitoring for those compounds.

Final Susceptibility Ranking

Both of the Stepping Stones Estates wells ranked moderately susceptible to all classes of regulated contaminants. Hydrologic sensitivity factors associated with the geology of the Rathdrum Prairie Aquifer added the most points to the final scores counted against the wells. Cumulative scores for each well are summarized on Table 2. A complete susceptibility analysis worksheet for each well can be found in Attachment A.

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)
- 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

The final ranking categories are as follows:

- 0 - 5 Low Susceptibility
- 6 - 12 Moderate Susceptibility
- > 13 High Susceptibility

Table 2. Summary of Stepping Stones Estates Susceptibility Evaluation

| Susceptibility Scores | | | | | | |
|------------------------------|---------------------|------------------------|-----------------------|-----|----------|-----------|
| Well | System Construction | Hydrologic Sensitivity | Contaminant Inventory | | | |
| | | | IOC | VOC | SOC | Microbial |
| Well #1 | 3 | 5 | 8 | 8 | 8 | 4 |
| Well #2 | 4 | 5 | 8 | 8 | 8 | 4 |
| Final Susceptibility Ranking | | | | | | |
| Well | IOC | | VOC | | SOC | |
| Well #1 | Moderate | | Moderate | | Moderate | |
| Well #2 | Moderate | | Moderate | | Moderate | |

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

HIGH* - Indicates source automatically scored as high susceptibility due to presence of bacteria or a VOC, SOC or an IOC above the maximum contaminant level in the tested drinking water

Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program is tailored to the particular local source water protection area. The state and local health districts have instituted enhanced protection of the ground water in the Rathdrum Prairie Aquifer because of its high use and uniquely pristine water quality.

The protections are generally aquifer wide and are not aimed at zones of contribution to a specific well or water system.

The Spokane Valley-Rathdrum Prairie Atlas, sent to water systems on the prairie when they were invited to perform an enhanced contaminant inventory, describes some of the regional protection measures.

The 186 public water systems in Idaho that draw water from the Rathdrum Prairie Aquifer should consider forming a regional group to represent their interests before state, county and municipal governing bodies when regulatory tools like zoning overlays, or enactment of building codes are the most appropriate ground water protection measures. These types of measures could be used to protect the capture zones of a specific system or group of wells that could be put at risk from local land use changes. Partnerships with state and local agencies and industry groups should also be established. For instance, source water protection activities for agriculture, an important land use in the Stepping Stones Estates well recharge area, should be coordinated with the Idaho State Department of Agriculture, local Soil Conservation District, and the Natural Resources Conservation Service.

For source water protection in its own jurisdiction, Stepping Stones Estates should promote back flow prevention. Pressure drops caused by a pump outage may have allowed water from a stock tank or automatic sprinkler system to be drawn back into the main distribution system through an unprotected connection, contributing to the bacteriological contamination problem experienced in 2001. The joint between the discharge line from Well 1 and the reservoir was also cited in the July 2001 sanitary survey as a possible entry point for surface contaminants. Defects in the same joint were noted in a sanitary inspection conducted in March 1998. The water utility should consider distributing septic tank maintenance brochures and other educational materials pertaining to ground water pollution prevention with its monthly bills. While bacteria, viruses, pharmaceuticals and nitrates are the primary contaminants of concern from septic systems, they can also be a source of SOCs and VOCs from improperly disposed of household products. The Water Association could also promote ground water stewardship through workshops to train homeowners in the proper application of lawn and garden chemicals.

Due to the time involved with the movement of ground water, wellhead protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

Assistance

Public water suppliers and users may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Coeur d'Alene Regional DEQ Office (208) 769-1422

State IDEQ Office (208) 373-0502

Website: <http://www.deq.state.id.us>

Water suppliers serving fewer than 10,000 persons may contact John Bokor, Idaho Rural Water Association, at (208) 343-7001 for assistance with wellhead protection strategies.

References Cited

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997. "Recommended Standards for Water Works."

Idaho Department of Agriculture, 1998. Unpublished Data.

Idaho Division of Environmental Quality, 1994. Ground Water and Soils Reconnaissance of the Lower Payette Area, Payette County, Idaho. Ground Water Quality Technical Report No. 5. Idaho Division of Environmental Quality. December 1994.

Idaho Division of Environmental Quality, 1996. Lower Payette River Agriculture Irrigation Water Return Study and Ground Water Evaluation, Payette County, Idaho. Water Quality Status Report No. 115.

Idaho Department of Environmental Quality, 1997. Design Standards for Public Drinking Water Systems. IDAPA 58.01.08.550.01.

Idaho Department of Environmental Quality, 2000. City of Fruitland Wellhead Viability Project 319 Grant Final Report July 2000.

Idaho Department of Environmental Quality, 2000. *The Spokane Valley-Rathdrum Prairie Aquifer Atlas*.

Idaho Department of Water Resources, 1993. Administrative Rules of the Idaho Water Resource Board: Well Construction Standards Rules. IDAPA 37.03.09.

Natural Resource Conservation Service, 1991. Idaho Snake-Payette Rivers Hydrologic Unit Plan of Work. March 1991.

United States Geological Survey, 1986. Quality of Ground Water in the Payette River Basin, Idaho. United States Geological Survey. Water Resources Investigation Report 86-4013.

University of Idaho. 1986. Ground Water Resources in a Portion of Payette County, Idaho. Idaho Water Resources Research Institute. University of Idaho. Moscow, Idaho. April 1986.

Attachment A

Stepping Stones Estates Susceptibility Analysis Worksheets

Ground Water Final Susceptibility Scoring

0-5 = Low Susceptibility

6-12 = Moderate Susceptibility

13-18 = High Susceptibility

Ground Water SusceptibilityPublic Water System Name : **STEPPING STONES ESTATES**Source: **WELL 1**Public Water System Number : **1280243**

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| 1. System Construction | | SCORE | | | |
|---|---------------------------------------|--------------|-----------|-----------|-----------|
| Drill Date | 4/26/85 | | | | |
| Driller Log Available | YES | | | | |
| Sanitary Survey (if yes, indicate date of last survey) | YES 2001 | | | | |
| Well meets IDWR construction standards | YES | 0 | | | |
| Wellhead and surface seal maintained | YES | 0 | | | |
| Casing and annular seal extend to low permeability unit | NO | 2 | | | |
| Highest production 100 feet below static water level | NO | 1 | | | |
| Well located outside the 100 year flood plain | YES | 0 | | | |
| Total System Construction Score | | 3 | | | |
| 2. Hydrologic Sensitivity | | | | | |
| Soils are poorly to moderately drained | NO | 2 | | | |
| Vadose zone composed of gravel | YES | 1 | | | |
| Depth to first water => 300 feet | YES | 0 | | | |
| Aquitard present with > 50 feet cumulative thickness | NO | 2 | | | |
| Total Hydrologic Score | | 5 | | | |
| 3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback) | | IOC | VOC | SOC | Microbial |
| | | Score | Score | Score | Score |
| Land Use Zone 1A | IRRIGATED CROPLAND | 2 | 2 | 2 | 2 |
| Farm chemical use high | NO | 0 | 0 | 0 | |
| IOC, VOC, SOC, or Microbial sources in Zone 1A | NO | NO | NO | NO | NO |
| Total Potential Contaminant Source/Land Use Score - Zone 1A | | 2 | 2 | 2 | 2 |
| Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT) | | | | | |
| Contaminant sources present (Number of Sources) | NO | 0 | 0 | 0 | 0 |
| (Score = # Sources X 2) 8 Points Maximum | | 0 | 0 | 0 | 0 |
| Sources of Class II or III leacheable contaminants or Microbials | NO | 0 | 0 | 0 | |
| 4 Points Maximum | | 0 | 0 | 0 | |
| Zone 1B contains or intercepts a Group 1 Area | NO | 0 | 0 | 0 | 0 |
| Land use Zone 1B | 25 to 50% Irrigated Agricultural Land | 2 | 2 | 2 | 2 |
| Total Potential Contaminant Source / Land Use Score - Zone 1B | | 2 | 2 | 2 | 2 |
| Potential Contaminant / Land Use - ZONE II (6 YR. TOT) | | | | | |
| Contaminant Sources Present | YES State Highway 54 | 2 | 2 | 2 | |
| Sources of Class II or III leacheable contaminants or Microbials | YES | 1 | 1 | 1 | |
| Land Use Zone II | 25 to 50% Irrigated Agricultural Land | 1 | 1 | 1 | |
| Potential Contaminant Source / Land Use Score - Zone II | | 4 | 4 | 4 | 0 |
| Potential Contaminant / Land Use - ZONE III (10 YR. TOT) | | | | | |
| Contaminant Source Present | NO | 0 | 0 | 0 | |
| Sources of Class II or III leacheable contaminants or Microbials | NO | 0 | 0 | 0 | |
| Is there irrigated agricultural lands that occupy > 50% of Zone | NO | 0 | 0 | 0 | |
| Total Potential Contaminant Source / Land Use Score - Zone III | | 0 | 0 | 0 | 0 |
| Cumulative Potential Contaminant / Land Use Score | | 8 | 8 | 8 | 4 |
| 4. Final Susceptibility Source Score | | 10 | 10 | 10 | 10 |
| 5. Final Well Ranking | | Moderate | Moderate | Moderate | Moderate |

Ground Water Susceptibility

Public Water System Name : **STEPPING STONES ESTATES**

Source: **WELL 2**

Public Water System Number : **1280243**

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| 1. System Construction | | SCORE | | | |
|---|---------------------------------------|-----------|-----------|-----------|-----------|
| Drill Date | 4/20/96 | | | | |
| Driller Log Available | YES | | | | |
| Sanitary Survey (if yes, indicate date of last survey) | YES 2001 | | | | |
| Well meets IDWR construction standards | NO | 1 | | | |
| Wellhead and surface seal maintained | YES | 0 | | | |
| Casing and annular seal extend to low permeability unit | NO | 2 | | | |
| Highest production 100 feet below static water level | NO | 1 | | | |
| Well located outside the 100 year flood plain | YES | 0 | | | |
| Total System Construction Score | | 4 | | | |
| 2. Hydrologic Sensitivity | | | | | |
| Soils are poorly to moderately drained | NO | 2 | | | |
| Vadose zone composed of gravel | YES | 1 | | | |
| Depth to first water => 300 feet | YES | 0 | | | |
| Aquitard present with > 50 feet cumulative thickness | NO | 2 | | | |
| Total Hydrologic Score | | 5 | | | |
| 3. Potential Contaminant / Land Use - ZONE 1A (Sanitary Setback) | | IOC | VOC | SOC | Microbial |
| | | Score | Score | Score | Score |
| Land Use Zone 1A | IRRIGATED CROPLAND | 2 | 2 | 2 | 2 |
| Farm chemical use high | NO | 0 | 0 | 0 | |
| IOC, VOC, SOC, or Microbial sources in Zone 1A | NO | NO | NO | NO | NO |
| Total Potential Contaminant Source/Land Use Score - Zone 1A | | 2 | 2 | 2 | 2 |
| Potential Contaminant / Land Use - ZONE 1B (3 YR. TOT) | | | | | |
| Contaminant sources present (Number of Sources) | NO | 0 | 0 | 0 | 0 |
| (Score = # Sources X 2) 8 Points Maximum | | 0 | 0 | 0 | 0 |
| Sources of Class II or III leacheable contaminants or Microbials | NO | 0 | 0 | 0 | |
| 4 Points Maximum | | 0 | 0 | 0 | |
| Zone 1B contains or intercepts a Group 1 Area | NO | 0 | 0 | 0 | 0 |
| Land use Zone 1B | 25 to 50% Irrigated Agricultural Land | 2 | 2 | 2 | 2 |
| Total Potential Contaminant Source / Land Use Score - Zone 1B | | 2 | 2 | 2 | 2 |
| Potential Contaminant / Land Use - ZONE II (6 YR. TOT) | | | | | |
| Contaminant Sources Present | YES Highway 54 | 2 | 2 | 2 | |
| Sources of Class II or III leacheable contaminants or Microbials | YES | 1 | 1 | 1 | |
| Land Use Zone II | 25 to 50% Irrigated Agricultural Land | 1 | 1 | 1 | |
| Potential Contaminant Source / Land Use Score - Zone II | | 4 | 4 | 4 | 0 |
| Potential Contaminant / Land Use - ZONE III (10 YR. TOT) | | | | | |
| Contaminant Source Present | NO | 0 | 0 | 0 | |
| Sources of Class II or III leacheable contaminants or Microbials | NO | 0 | 0 | 0 | |
| Is there irrigated agricultural lands that occupy > 50% of Zone | NO | 0 | 0 | 0 | |
| Total Potential Contaminant Source / Land Use Score - Zone III | | 0 | 0 | 0 | 0 |
| Cumulative Potential Contaminant / Land Use Score | | 8 | 8 | 8 | 4 |
| 4. Final Susceptibility Source Score | | 11 | 11 | 11 | 11 |
| 5. Final Well Ranking | | Moderate | Moderate | Moderate | Moderate |

POTENTIAL CONTAMINANT INVENTORY

LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as Superfund is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.